ABSTRACT OF THE DISCLOSURE

The invention includes methods for assaying protease activity. According to one aspect of the present invention provides a nucleic acid construct having a sequence encoding an amino terminal portion of a fluorescent reporter fused to a sequence encoding a substrate of a protease followed by a sequence encoding a carboxyl terminal portion of a fluorescent reporter protein. The recombinant fluorescent substrate is then expressed in the presence of a protease. A change in quenching of fluorescence in the recombinant substrate is then detected. The change is an indication of protease activity.